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**CLAIMS**

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[The scope of a claim for utility model registration]

[Claim 1]A steam convection oven allocating a cross valve in an intermediate part of said \*\* pipe in a steam convection oven constituted with a \*\* pipe of a main part of a steam convection oven, a warehouse chamber portion, a steam generator, and a warehouse chamber portion and a steam generator, etc.

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## DETAILED DESCRIPTION

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[Detailed explanation of the device]

[0001]

This design is related with the steam convection oven as a business-use cooking appliance.

[0002]

[Description of the Prior Art]

When cooking by putting a steam into the warehouse chamber portion 2 of the main part 1 of a steam convection oven, The water of the steam generator 3 which is \*\*\*\*(ing) on the main part 1 of a steam convection oven is boiled, and it is common to send out the steam to the warehouse chamber portion 2, and he is trying to once cut the heat source of the steam generator 3 as a procedure after sending out the required vapor amount for cooking to the warehouse chamber portion 2.

[0003]

[Problem(s) to be Solved by the Device]

However, the hot water currently stored in the steam generator 3 at this time is \*\* which maintained the boiling state near 100 degreeC.

Therefore, the excess vapor more than an initial complement will flow into the warehouse chamber portion 2 until the temperature of hot water falls, and the finishing condition and mouthfeel of the cooked thing cooked in the warehouse chamber portion 2 as a result will cause problems, such as solid \*\*\*\*\*.

[0004]

In fermentation cooking of baker's dough etc. which are usually cooked by the temperature zone about 30 degrees C-40 degreeC, when the steam more than an initial complement flowed into the warehouse chamber portion, the temperature in a warehouse chamber portion went up too much, and also had the problem that fermentation cooking of good baker's dough could not be performed.

[0005]

[Means for Solving the Problem]

This design is proposed in view of a problem of the \*\*\*\* former, and this design can solve the above-mentioned conventional problem in detail by making it make a cross valve allocate in an intermediate part of a \*\* pipe to which a warehouse chamber portion and a steam generator of a steam convection oven are connected.

[0006]

[An embodiment of a device]

When an embodiment of this design is described based on drawing 2, drawing 3, and drawing 4, drawing 2, A structure schematic diagram, drawing 3, and drawing 4 of a steam convection oven concerning this design It is an operation explanatory view of a cross valve by which operation application is carried out about this design, The drawing numerals 11 show a \*\* pipe to which a main part of a steam convection oven and 12 connect a warehouse chamber portion of a steam convection oven, 13 connects a steam generator, and 14 connects the warehouse chamber portion 12 and the steam generator 13, and allocate the cross valve 15 in an intermediate part of

this \*\* pipe 14.

[0007]

If this design makes it a device gist to allocate the cross valve 15 in an intermediate part of the \*\* pipe 14 (steam passage) which ties the warehouse chamber portion 12 and the steam generator 13 and this cross valve 15 is switched, The \*\* pipe 14 opens wide, it becomes possible to make an initial complement of a steam sent out from the steam generator 13 flow into the warehouse chamber portion 12, and, thereby, a cooked thing in the warehouse chamber portion 12 can be cooked advantageously.

[0008]

When a steam passage of the \*\* pipe 14 is made to intercept by the change of the cross valve 15, a flow direction of a steam which it is sent out from the steam generator 13 and is going to flow into the warehouse chamber portion 12 will be changed, and a steam will be discharged outside. Therefore, a steam more than an initial complement flows into the warehouse chamber portion 12, a cooked thing in the warehouse chamber portion 12 is finished, condition can be worsened or mouthfeel of a cooked thing can solve problems, such as solid \*\*\*\*\*.

[0009]

When excess vapor went into the warehouse chamber portion 12 conventionally, could not hold temperature inside, but temperature inside had risen therefore done evils, such as with solid one, to fermentation cooked material like baker's dough, but. Since the \*\* pipe 14 (steam passage) can open wide when a steam is needed, a passage to the warehouse chamber portion 12 can be closed when a steam becomes unnecessary and an unnecessary steam can be discharged to an outer direction if it is in this design, Result condition becomes it is good and possible [ practicing fermentation cooking of baker's dough solved with solid one etc. ].

[0010]

[Effect of the Device]

This design is carried out with a gestalt which was explained above, and does so an effect which is indicated below.

[0011]

By allocating a cross valve in the intermediate part of the \*\* pipe to which between the warehouse chamber portion of steam convection and steam generators is connected, the proper use at the time of steamy necessity and steamy needlessness is attained. Are cancelable a result of the cooking foods which had become a problem conventionally, with solid one, etc. by this, It can allocate easily [ the steam passage way (\*\* pipe) which performs fermentation cooking of baker's dough, etc. advantageously and to which things can be carried out and the existing warehouse chamber portion and steam generator of the main part of a steam convection oven are moreover connected in itself / cross valve ].

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PRIOR ART

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EFFECT OF THE INVENTION

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[Effect of the Device]

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By allocating a cross valve in the intermediate part of the \*\* pipe to which between the warehouse chamber portion of steam convection and steam generators is connected, the proper use at the time of steamy necessity and steamy needlessness is attained. Are cancelable a result of the cooking foods which had become a problem conventionally, with solid one, etc. by this, It can allocate easily [ the steam passage way (\*\* pipe) which performs fermentation cooking of baker's dough, etc. advantageously and to which things can be carried out and the existing warehouse chamber portion and steam generator of the main part of a steam convection oven are moreover connected in itself / cross valve ].

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TECHNICAL PROBLEM

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[Problem(s) to be Solved by the Device]

However, the hot water currently stored in the steam generator 3 at this time is \*\* which maintained the boiling state near 100 degreeC.

Therefore, the excess vapor more than an initial complement will flow into the warehouse chamber portion 2 until the temperature of hot water falls, and the finishing condition and mouthfeel of the cooked thing cooked in the warehouse chamber portion 2 as a result will cause problems, such as solid \*\*\*\*\*.

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## MEANS

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### [Means for Solving the Problem]

This design is proposed in view of a problem of the \*\*\*\* former, and this design can solve the above-mentioned conventional problem in detail by making it make a cross valve allocate in an intermediate part of a \*\* pipe to which a warehouse chamber portion and a steam generator of a steam convection oven are connected.

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### [0010]

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**DESCRIPTION OF DRAWINGS**

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[Brief Description of the Drawings]

[Drawing 1]Drawing 1 is a structure schematic diagram of a steam convection oven conventionally.

[Drawing 2]Drawing 2 is a structure this schematic illustration of this steam convection oven.

[Drawing 3]Drawing 3 is an operation explanatory view of a cross valve.

[Drawing 4]Drawing 4 is an operation explanatory view of a cross valve.

[Description of Notations]

11 The main part of a steam convection oven

12 Warehouse chamber portion

13 Steam generator

14 \*\* pipe

15 Cross valve

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[Translation done.]



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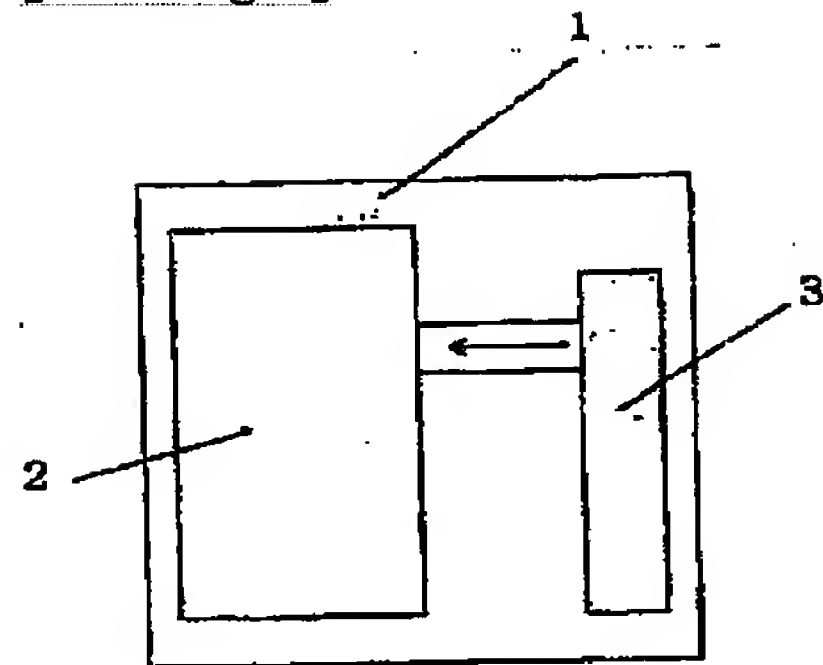
1.This document has been translated by computer. So the translation may not reflect the original precisely.

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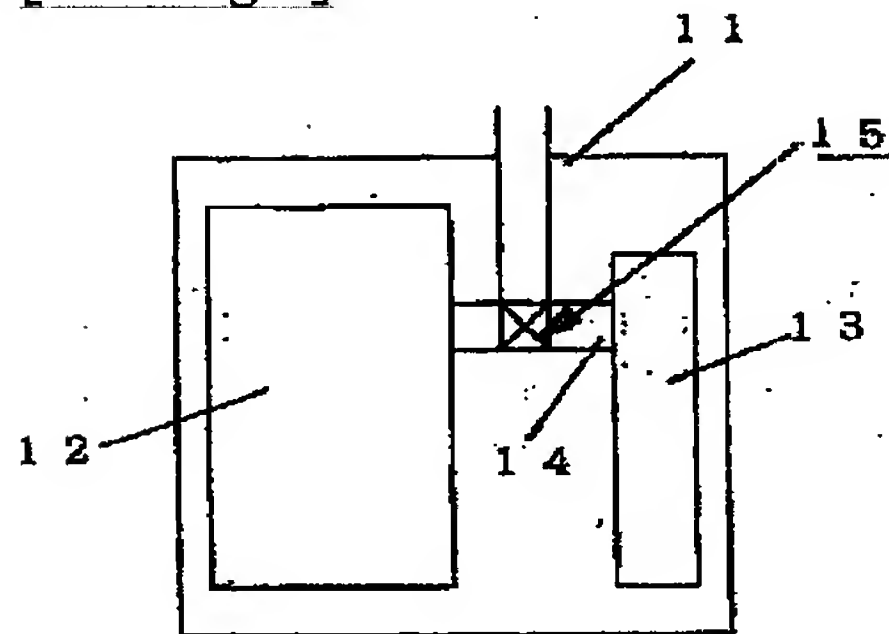
3.In the drawings, any words are not translated.

## DRAWINGS

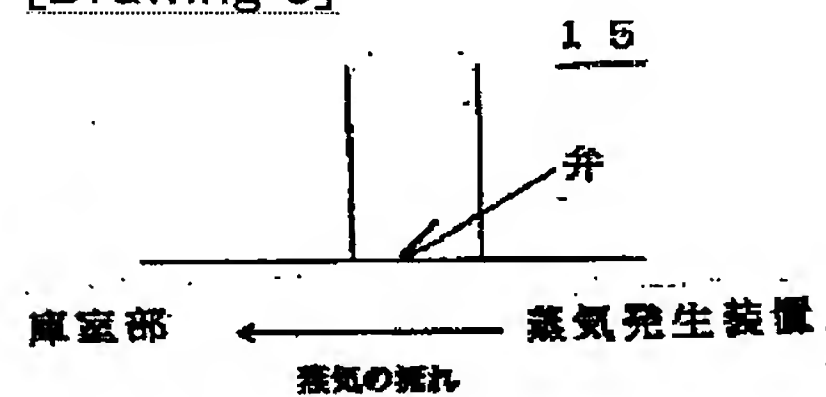
[Drawing 1]



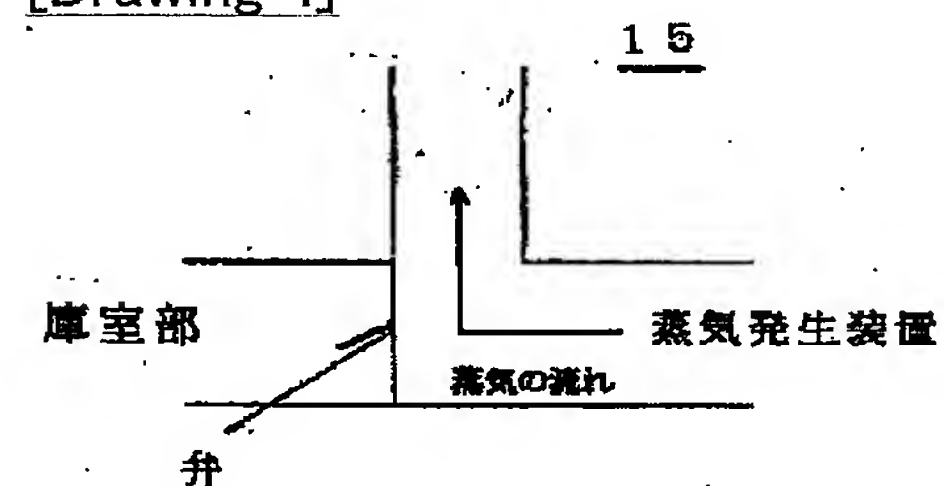
[Drawing 2]



[Drawing 3]



[Drawing 4]



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[Translation done.]

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(45)発行日 平成13年 5 月25日 (2001. 5. 25)(24)登録日 平成13年 2 月28日 (2001. 2. 28)

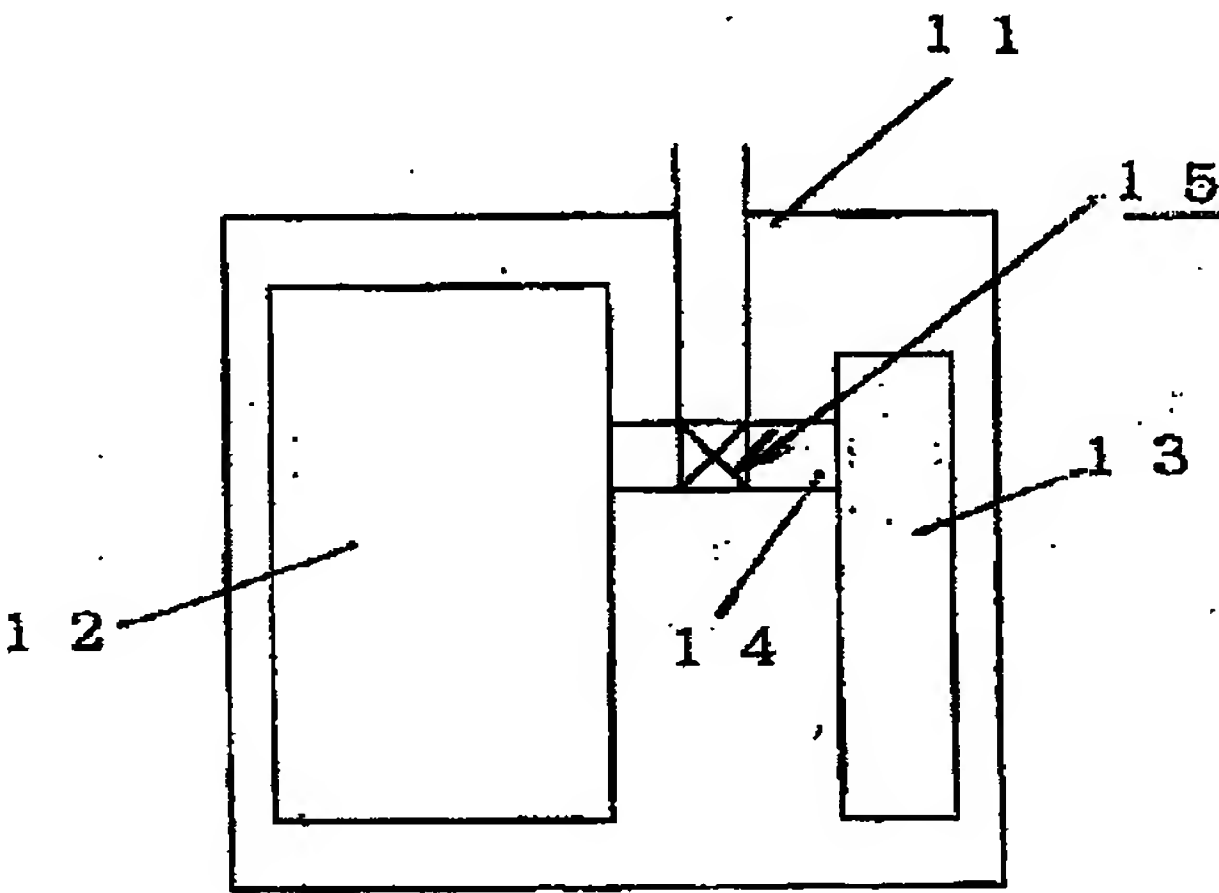
(51)Int.Cl.<sup>7</sup>識別記号F I  
F 2 4 C 1/003 1 0F 2 4 C 1/003 1 0 B

評価書の請求 未請求 請求項の数 1 書面（全 5 頁）

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		続き有	

(54)【考案の名称】 スチームコンベクションオープン

(57)【要約】  
【課題】調理食材の仕上がり、ベタつき等を解消する手段を備えたスチームコンベクションオープンを提供する。  
【解決手段】スチームコンベクションオープン本体、庫室部、蒸気発生装置、庫室部と蒸気発生装置との繋管などにより構成されるスチームコンベクションオープンにおいて、前記繋管の中間部位に三方弁を配設することを特徴とする。。



1

2

## 【実用新案登録請求の範囲】

【請求項1】 スチームコンベクションオープン本体、庫室部、蒸気発生装置、庫室部と蒸気発生装置との繋管などにより構成されるスチームコンベクションオープンにおいて、前記繋管の中間部位に三方弁を配設するようにしたことを特徴とするスチームコンベクションオープン。

## 【図面の簡単な説明】

【図1】 図1は、従来スチームコンベクションオープンの構造概略図である。

\* 【図2】 図2は、本考案スチームコンベクションオープンの構造該略図である。

【図3】 図3は、三方弁の作用説明図である。

【図4】 図4は、三方弁の作用説明図である。

## 【符号の説明】

1 1 スチームコンベクションオープン本体

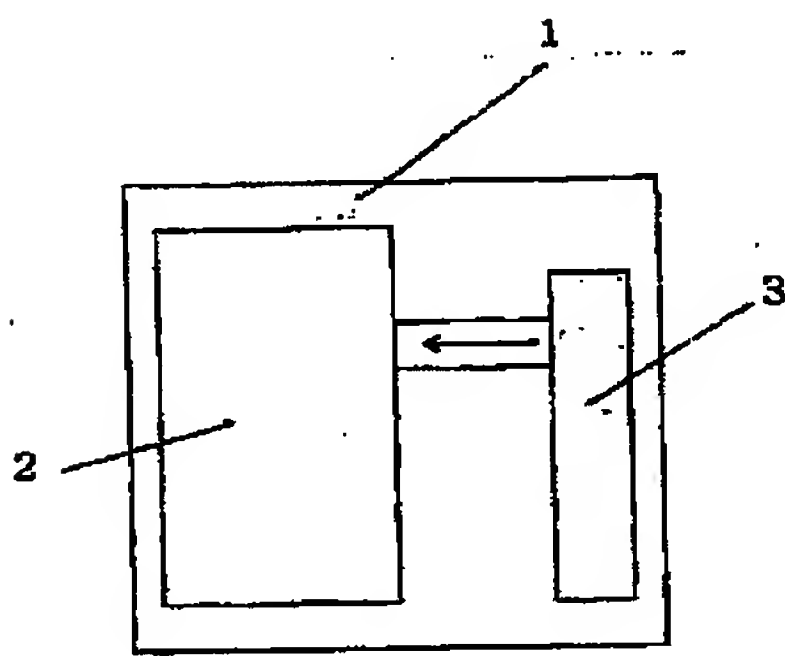
1 2 庫室部

1 3 蒸気発生装置

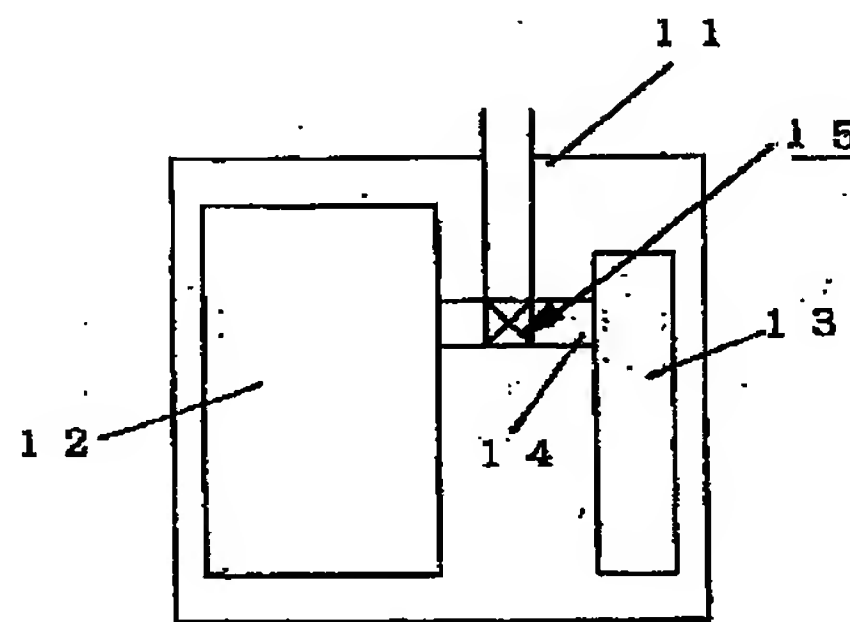
1 4 繋管

\*10 1 5 三方弁

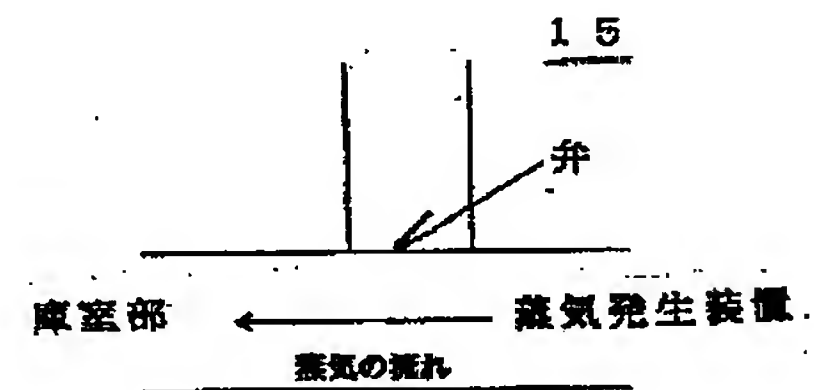
【図1】



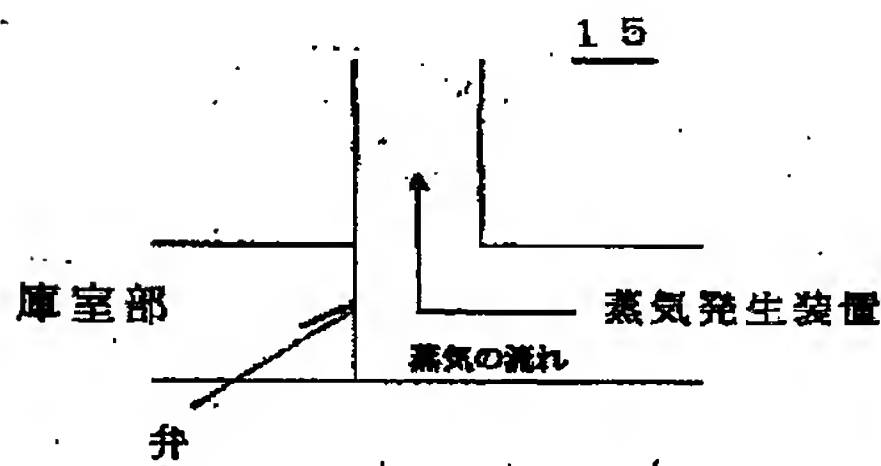
【図2】



【図3】



【図4】



フロントページの続き

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**【考案の詳細な説明】****【0001】**

本考案は、業務用厨房機器としてのスチームコンベクションオーブンに関するものである。

**【0002】****【従来の技術】**

スチームコンベクションオーブン本体1の庫室部2に蒸気を入れて調理をする際、スチームコンベクションオーブン本体1に据設している蒸気発生装置3の水を沸騰させ、その蒸気を庫室部2に送り出すのが一般的であり、庫室部2に調理のための必要蒸気量を送り出した後の手順として、蒸気発生装置3の熱源を一旦、切るようにしている。

**【0003】****【考案が解決しようとする課題】**

しかし、この時の蒸気発生装置3に貯留しているお湯は、100℃付近の沸騰状態を維持した儘であり、そのため、お湯の温度が下がるまでは必要量以上の過剰蒸気が庫室部2に流入し、結果として、庫室部2において調理される被調理物の仕上げ具合や食感がベタついてしまう等の問題を引き起こすことになる。

**【0004】**

また、通常30℃～40℃程度の温度帯によって調理されるパン生地が発酵調理等においては、庫室部に必要量以上の蒸気が流入すると、庫室部内の温度は上がり過ぎて、良好なパン生地が発酵調理ができないという問題もあった。

**【0005】****【課題を解決するための手段】**

本考案は、斯る従来の問題点に鑑み提案されたものであって、詳しくは、本考案は、スチームコンベクションオーブンの庫室部と蒸気発生装置とを結ぶ繋管の中間部位に三方弁を配設させるようにすることで上記従来の問題点を解決することができる。

**【0006】****【考案の実施の形態】**

本考案の実施の形態を、図2、図3、図4に基づき説明すると、図2は、本考案に係るスチームコンベクションオーブンの構造概略図、図3及び図4は本考案で実施適用される三方弁の作用説明図であり、図面符号11はスチームコンベクションオーブン本体、12はスチームコンベクションオーブンの庫室部、13は蒸気発生装置、14は庫室部12と蒸気発生装置13とを結ぶ繋管を示し、この繋管14の中間部位に三方弁15を配設する。

#### 【0007】

本考案は、庫室部12と蒸気発生装置13とを結ぶ繋管14（蒸気通路）の中間部位に三方弁15を配設することを考案要旨とするものであり、この三方弁15を切り換えると、繋管14が開放し、蒸気発生装置13より送り出される蒸気の必要量を庫室部12に流入させることが可能となり、これにより、庫室部12における被調理物の調理を有利に行うことができる。

#### 【0008】

また、三方弁15の切り換えにより繋管14の蒸気通路を遮断させた場合、蒸気発生装置13より送り出されて庫室部12に流入しようとする蒸気の流れ方向は変換し、蒸気は外部に排出されることになる。従って、庫室部12に必要量以上の蒸気が流入して庫室部12における被調理物を仕上がり具合を悪くさせたり、或は、被調理物の食感がベタついてしまう等の問題を解消できる。

#### 【0009】

更に、従来、庫室部12に過剰蒸気が入ると、庫内温度を保持できず、庫内温度が上昇していた、そのため、パン生地のような発酵調理物にベタつき等の弊害を与えていたが、本考案にあっては、蒸気が必要になった時に繋管14（蒸気通路）が開放し、蒸気が不要となった時に庫室部12への通路を閉じ、不要蒸気を外部方向に排出することができるので、仕上がり具合が良好で、ベタつき等を解消したパン生地の発酵調理を実践することが可能となる。

#### 【0010】

##### 【考案の効果】

本考案は、以上説明したような形態で実施され、以下に記載されるような効果を奏する。



**【0011】**

スチームコンベクションの庫室部と蒸気発生装置の間を結ぶ繋管の中間部位に三方弁を配設することにより、蒸気必要時と蒸気不要時の使い分けが可能になる。また、これにより、従来問題となっていた調理食材の仕上がり、ベタつき等を解消でき、更に、パン生地が発酵調理等を有利に行うことができ、しかも、三方弁それ自体、既存のスチームコンベクションオーブン本体の庫室部と蒸気発生装置を結ぶ蒸気道路（繋管）に簡単に配設することができる。